

of the Tibetans. It has four subforms; *viz.*, Plate II, *c*, *d*, and Plate III, *a*, *b*, *c*.

(1.) Pema tshug-chhuñ :—small roundish letters, used in elegant writings, epistles, and love-letters.—Plate III, *a*, *b*.

(2.) Khyug yig :—running hand letters, used entirely in business and correspondence.—Plate III, *c*.

(3.) Ka-dpé or Khugs yig rKañ riñ :—long-legged letters for copy-writing, exercises in penmanship, &c.—Plate II, No. *c*.

(4.) Dpe yig rKañ thuñ :—short-legged letters for manuscripts, books, &c.—Plate II, *d*.

III. The third form called Du-tsha (*Hbru-tshag*), which is seldom used for the above four purposes, is used in public notices, placards, signboards, names of books on covers, and in making covers of goods, bales, furniture, &c., (see Plate III, *d*). Almost all the Pon books are written in this form. It appears to me that the Pons, out of their antagonism to Buddhism, were averse to adopt the Lan-tsha form of Sanskrit in their sacred writings and inscriptions. They, therefore, gave the ornamental shape to the U-me characters, and thereby formed the Du-tsha, (see Plate III, *e*). As in course of time the Pon religion declined, it (Du tsha) fell into disuse. Still the largest use is made of it only in Pon monasteries. The U-me form is now-a-days taking its place in the writing of notices and signboards. The three forms of characters are, however, modifications of that form of the Devanāgarī which was current in Magadha during the 7th and 8th centuries A. D.\* The U-chan, U-me, and Du-tsha run parallel to each other in their shape.—Plates II and III.

IV. The Lan-tsha (*Ranja*) form of Sanskrit is exclusively used in writing title-pages, headings of books, ornamental inscriptions, tapestries, painting, sacred objects and symbols, &c., &c. It was introduced in Tibet from Magadha.—Plates VIII and IX.

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*Some Pre-historic Burial-places in Southern India.*—By A. REA, M. R. A. S.  
(With two plates.)

*Megalithic and earthenware tombs at Pallāvaram.*

These remains, consisting of groups of dolmens, and round and oblong earthenware sarcophagi, are found around and over a range of hills to the east of the village of Trisulūr about a mile to the east of the

\* “The Tibetan alphabet itself, as has been noticed in other places, is stated to have been formed from the *Devanāgarī*, prevalent in Central India in the seventh century. On comparing the forms of its letters with those of various ancient Sanskrit inscriptions, particularly that at Gya, translated by Mr. (now Sir Charles) Wilkins, and that on the column at Allahabad, translated by Captain Trover and Dr. Mill, a striking similitude will be observed.” Csoma’s Tibetan grammar, page 204.

cantonment of Pallāvaram. A rock-cut cave on an adjoining hill shows that the place was in existence in the days of the Pallavas, or probably about or before the 7th century A. D. The name itself shows the origin of the town, and, from the extensive nature of these burial-places, the settlement was probably a large one. Like all this part of the country, included in the kingdom of Tondaimandalam, it would finally be wrested from the Pallavas and fall under the sway of the conquering Cholas in the 11th century. That it did so, is proved by the existence of a Chola temple in the village of Triśulūr. The tombs themselves most probably belong to the earlier settlement of the Pallavas, for they seem to be anterior in date to the 11th century. Stone circles similar to these exist near Amarāvati, and at various places once part of the Pallava kingdom. Oblong earthenware sarcophagi have been found in the districts of Chingleput Nellūr and North Arkát; and the more common round or globular earthen tombs exist at places in the Chingleput Salem, Madura, Malabar and most other districts. Sir Walter Elliot believed that the dolmens were erected by the Pallavas, and this view seems to be to a certain extent borne out by subsequent observers, in so far as it relates to the fact that the Pallavas may have erected dolmens; it is very doubtful if they could have erected all of them. In the dolmens themselves, however, there is great variety of form observable in the various districts, and if these were all the work of one race of people, the differences would have to be accounted for by the forms adopted or practised by the various sects or castes. The problem is one not so easily solved, for dolmens with a greater or less similarity to each other exist, not only over the whole of India, but also over a great portion of the world. If we assume that the Pallavas or Kurumbars erected those in India, how is the resemblance to these in others, found out of India, to be accounted for? But even in India itself, though the Pallavas were undoubtedly a powerful dynasty, there is no proof that they had sway over anything like the whole of India. This being so, those megalithic remains, found outside the limits of the ancient Pallava kingdom, must have been erected by a different race or races from the Pallavas. Carrying the point still further, when considerable difference of plan, design, or arrangement is found—for example, circles, squares, and the almost infinite variety of classes of megalithic remains,—not only over wide areas within the limits of the Pallava kingdom, but even in those in close proximity to each other, how can it be proved that they were all erected by the Pallavas? If it is admitted that they may have erected certain of them, it must be qualified by the inferred supposition that the differences in arrangement must be due to the forms used by different castes or sections of the tribe; for, in a conservative people

like the Hindús, it would be an anomaly to find one caste practising a plurality of methods in the disposal of its dead. The Pallavas probably erected one or more classes of megaliths or other tombs in common with other races of the time. They could not have used all the different varieties we find existing. To ascertain which they really did use, we must find which forms are the commonest around the remains of the principal of their settlements. It has been suggested, originally I think by Fergusson, that the distribution of the dolmens might be due to the wanderings of a primeval tribe over the different parts of the globe. It is to be feared, however, that any such primeval remains must not be looked for on the present surface of the earth, but in one or more of the strata at some distance below it. The present level cannot by any possibility be such as was the surface in primeval times, else we must assume, that if primeval remains are now found on the earth's present surface, high above the strata which, each successively, formed the surface in early times, then the earth in those days must have been uninhabited; but, I think this is hardly asserted. The dolmens now seen cannot be much more than a thousand years old, else they would have been silted up long ere this. They cannot therefore be such as were erected by primeval tribes, though it is quite possible they may be the descendants or copies of dolmens which really were erected in such early times, and which may now exist with other fossilized remains of the time at some considerable depth underground. This might be expected; for, from the very earliest times, man must have had a reverence for his dead, and taken steps to mark the spot of its burial by the erection of some such rude monuments. Fergusson, in his *Rude Stone Monuments* has treated this part of the subject very clearly, going into the earliest forms of sepulture practised by primitive tribes, and showing how they developed under the effects of a more advanced civilization.

At Pallávaram, the stone circles occupy a position by themselves on the tops and sides of the hills, whereas the oblong and round earthen tombs stand on the sloping ground around and at some distance from the base; and all close to or on the surface. As the earthenware tombs are found scattered over one and the same piece of ground, they must have been used by one race, and by one section of it. They have all, certainly at one time, had high lids or covers, and had they been sunk in the earth till these were below the surface,—as the tops are now all away, and the rims of the tombs themselves are now above or on the surface of the ground—it would lead to the inference that the ground line in those days had been from three to four feet *higher* than it is now-a-days. Had there been no mounds, it would require to have been so, to cover the high semi-globular lids of the round tombs. This of course

would be absurd, for except in cases where the surface earth is washed away by rain or in similar exceptional instances, it will be found that the tendency is for the surface to *rise* by continual accumulations of soil, rather than fall. Ancient remains continue to sink below ground, or more strictly become covered up in proportion to their age. This will be found to be always the case, except in cases where there is some counteracting cause at work. Now the most probable explanation of the position of these tombs is, that they would seem to have been placed in the earth with their rim about or near the surface, and the lids above it: this was then covered up by a mound. The mound would gradually wash down, and as it went, the lids of the tombs would disappear also, leaving the tombs themselves exactly as we find them or just about the surface of the ground, and without their covers. It is out of the questions to suppose that the surface could have been so much higher than it is now; and the only possible way by which the high lids of the tombs could be protected or covered would be by a mound.\* We have endeavoured to show that the practices of modern burying castes may be referred to as elucidating some of the ancient customs connected with these tombs; and in this instance the placing of the tomb partly above the natural surface of the ground, has its counterpart in the burying of the body up to its waist in the grave. (See subsequent remarks on the subject.)

Regarding the foregoing remarks on the gradual silting up of ancient remains, it may be observed that the fact, if properly investigated, might be the means of settling many disputed questions regarding the age of megalithic and other remains. Very little really is known as to the actual age of such tombs. Various dates have of course been assigned, but only on surmise; nothing certain has yet transpired to definitely fix their actual age. Now this silting of the soil goes on steadily from year to year, and, if the total accumulation in a century be known, we would have an important factor in ascertaining their date, from their position above or below ground. Various other matters would of course have to be taken into consideration, such as any peculiarities of the locality. For instance, remains on the sides of a hill, may silt up but gradually or not at all, through the water rushing down the sides and carrying away the accumulations of soil. These are exceptions; but in ordinary circumstances, the process must go on with ceaseless regularity. Most of the ancient remains now hidden by mounds, have been covered by this natural process; very few can have been artificially concealed. It can certainly be used as an auxiliary to

\* See further remarks on the mounds, under the article on the Paravai tombs, also Plate X.

other means of fixing the date of certain remains, if not always with certain exactness, at least approximately. If we examine the section of a mound covering a building whose date is known, such as the stupa at Amarávati, several distinct former surfaces can be seen, marked in different instances by bricks or marbles which have fallen off, and are now lying on the level, several feet below the present surface. By proportionally dividing the height of the section of the earth bank, the accumulations of each century, which has elapsed since the erection of the building, can be almost exactly fixed. In this instance the application of the theory proves an important fact, namely, that the destruction of the stupa had been going on from the time it was deserted till it was completely covered up by the mounds; and disproves the supposition that the building must have remained complete till it was discovered at the beginning of the present century. This is proved by the finding of marble slabs at different levels. Some were lying about the level of the floor; these could only have fallen off when there was little or no accumulation of soil. Others again, were at varying levels above the floor line, these must have fallen when the ground line had risen or been silted up to the height at which they were found. This is alluded to simply as an exemplification of the application of the theory. It can undoubtedly be applied to aid in solving the problem of the age of these megalithic remains. It has been asserted that these earthenware tombs at Pallávaram were once enclosed by stone circles, though now no trace of them remains. It may have been so in certain cases, though from observations of similar examples at other places they would seem to have been simply covered by mounds. The stone circles even yet existing in the vicinity seem to enclose an entirely different class of tomb. It would be curious that these circles on the adjoining hills, enclosing the megalithic tombs, should even still exist in almost perfect condition, while no traces remain of circles at the earthen sarcophagi.

The round tombs are pointed on the bottom, and terminate in one leg. They are all near the surface, and, in most cases, their upper rim has been broken away, though projecting above ground; and for the same reason their covers are now away. On excavating one of these, I found a portion of an outer and separate rim remaining around the tomb itself, and advanced the theory that they must have been covered by a semi-globular lid, like an inverted chatty placed on the top. From some complete examples which I subsequently examined in the Madura District, I found this theory entirely borne out, for in those cases in which the lid still remained, its form was almost exactly a replicate of the tomb itself, only of a slightly greater diameter, so that it might be easily placed over and enclose the tomb proper (see Plate X, fig. 2). None of

the former observers of those remains at Pallávaram found any traces of iron, or other metal weapons or utensils ; nor were there any bones. In one of a number which I opened, some bones were found ; these were in a very decayed condition and uncalcined. A number of small earthen vessels have been found, principally in the round tombs : the oblong sarcophagi seem particularly devoid of such relics. In one of these latter I found a small oblong tomb placed inside the larger one, and from this I suggested that this oblong form may have been used for the females of the tribe : for, in certain cases with the Hindús at the present day it is the practice to bury the infant along with the mother. The bodies in the round tombs would be the males, placed in a crouching or sitting position. Certain tribes or castes among the Hindús still bury their dead in this position, though of course not in a receptacle, or enclosed tomb. The female is buried in a horizontal posture, and the male in a sitting position. In an interesting article\* on pre-historic tombs in Malabar, it has been stated that the protuberance on the bottom of such round sepulchral urns probably signifies a representation of the *os uteri* ; being emblematic of the religious ideas connected with the earth-goddess, and that such a burial was emblematic of the return of the individual to the womb of Mother Earth. The same idea was afterwards advanced in reference to the Pallávaram tombs.

The chief sect which adopts the custom of burying, (*uttara-kriyá*), is the Lingadháris or certain followers of S'iva,—who, in most cases, bury their dead in a sitting position. The grave is partly filled up to the waist of the deceased, when, after the saying of mantras and other ceremonies have been gone through, the friends who are present, throw in handfuls of earth till they raise a low mound over it. Sanyásis are always buried ; they are considered so holy that they have no need of the ceremonies necessary for baser mortals. Boys who have not undergone the ceremony of *upanayanam* (similar to the Anglican confirmation) ; by some castes, all unmarried girls ; with the Sudras, those under the age of ten ; those who die of small-pox, and soldiers who die in battle, all are buried. A relic of the ancient custom of placing food with the deceased (*pretáháram* or food for the spirit) still exists in the practice of cooking different kinds of food, and taking it to the burial-place, scattering it there. The remains at Pallávaram are evidently those of a burying people, and not of those who first cremate, and afterwards collect and place the burnt bones in the ground.

Dr. Burgess had suggested that one or more of the earthen tombs should be removed to Madras, but from the brittle condition in which

\* Logan, *Malabar*, 1887, Vol. I, p. 181.

they all were, it had been stated that it was impossible to remove any of them in their entirety. This certainly seemed to be so; the tombs were bulky, and the earthenware had so little cohesion, that it could be easily powdered between the fingers. The work thus seemed to be, if not altogether impossible, at least one of considerable difficulty, and requiring great care in execution. In addition, none of them were in a perfect condition; they were all cracked throughout, and it seemed that on any attempt to move one, it would instantly fall to pieces. As the removal therefore, of such a large unwieldy mass of cracked earthenware presented some rather peculiar difficulties, it may not be uninteresting to recount the method successfully adopted. On inspection, I first decided that it would be useless to attempt their removal if the earth had been taken from the inside. Though this added greatly to the weight, it was unavoidable, as the only cohesion the tombs had, rested in the hard earth which filled the interior. The tomb removed (see Plate X, fig. 1) is 6 feet long, 1 foot 8 inches deep, and 1 foot 6 inches broad, and has two rows of five legs. Like all the others it had a number of cracks over its surface, these were cemented, as, had this not been done, every piece would inevitably have separated whenever touched. The earth was cleared from around it, leaving it standing free on the ten legs. It was then lightly wrapped round with straw ropes; and bamboos were placed longitudinally above and below. Some packing-case planks were then cut to the necessary size, so as to form an enclosing box. Two planks were placed along each side, with upright supports fixed so that one would be nearly opposite each leg of the tomb; the wooden legs were cut so as to stand about 9 inches longer than the earthen ones. The box—open above and below—was then slipped over the top, and a hole dug in the ground below each wooden support, so that the box could be lowered till its lower plank was level with the under surface of the tomb. The space between the tomb and the sides of the box was then packed with straw, and a tarpaulin laid over as a cover. Cross bamboos were then inserted below, between each of the legs, and supported by ropes lashed around and over the top of the box. To ensure the safe lifting of the whole, the earth was cleared from under the tomb legs, thus leaving it suspended in the box. Large bamboos were then lashed over the top, and it was safely lifted to the surface. From thence it was removed to my tent half a mile distant. Before removing it further, it was considered desirable to put on some additional supports, as at that time the whole weight rested on the transverse bamboos below. Brackets of wood were therefore cut to fit the curve of the earthenware under surface; these were put underneath and fixed to the box sides. A longitudinal plank was then placed be-

low each row of the tomb legs, and, after the necessary cross-supporting pieces had been attached, the whole was removed by rail and cart to the Madras Government Museum. On its arrival, the two longitudinal planks, and cross wooden brackets were removed from under the large case, leaving the weight of the tomb resting on the bamboos as on its first removal. The legs of the box were then cut nearly level with those of the tomb, and it was lowered to the floor. As the earthen legs were not all of one equal length, wedges of varying thickness were fixed in below each; the ropes supporting the bamboos were then unwound, and the packing case lifted off. On removing the wrapping of straw rope, the tomb was found to be all right, without any new cracks, even in spite of the shaking it must have got in the journey to Madras.

A pyriform tomb was also removed to the Museum without much difficulty. The earth was left inside; the tomb wrapped round with straw rope, and placed point upwards in an ordinary packing case. (See Plate X, fig. 2.)\*

In addition to the two large sarcophagi, a number of smaller articles were also unearthed and removed to the Museum. These are—

No. 1.—A round lid, broken in seven pieces; was probably meant as a cover for No. 2; colour a reddish brown with black on the surface, (Tam. *Channake*.)

No. 2.—A pot, unbroken; evidently intended for rice or rice water. It is not dissimilar in shape to some chatties used by the people now-a-days; colour a reddish brown;  $6\frac{1}{2}$  inches diameter. (Tam. *Kanji-chattí*.)

No. 3.—Small, nearly round chatty, unbroken; probably intended for some liquid; red colour; 5 inches diameter. (Tam. *Kuḍuví*.)

No. 4.—Lota, partly broken, by being crushed against the under side of the tomb; red colour;  $5\frac{1}{2}$  inches diameter. (Tam. *Kuḍuví*.)

No. 5.—A small cup or chatti; probably for curry or similar food; red colour;  $3\frac{1}{8}$  inches diameter. (Tam. *Kattara*.)

No. 6.—Similar to No. 5;  $3\frac{3}{4}$  inches diameter.

No. 7.—A round piece of earthenware, broken in two pieces; concave on one side, with a groove around its rim; convex on the other, with a piece broken away from the apex; colour red, but black on the surface. It has most probably been a lid, as the groove on the rim would seem to show;  $4\frac{1}{2}$  inches diameter. (Tam. *Chánnake*.)

No. 8.—A variety of No. 7;  $6\frac{1}{2}$  inches diameter.

No. 9.—Similar to No. 5;  $5\frac{1}{2}$  inches diameter.

\* None of the pyriform tombs as yet seen at Pallávaram have their covers complete. The majority of them have lost all trace of it: the one removed has none.

Nos. 1 to 7 were found in a pyriform tomb; and Nos. 8 and 9 in another, with fragments of other chatties.

I think there seems a probability that some at least, if not all, of the utensils which we find in these tombs were originally placed, not in, but over them. In almost every case traces of a pottery lid remain; with the pyriform tombs this was an inverted chatty with a large head moulding on the rim. With the oblong tombs, a flat slab of earthenware has, I believe, covered them in every case: some of these have disappeared, but fragments are always found inside. Now, in some tombs, there is simply an accumulation of soil, which has broken through the lid by its weight, and in these, the contents are usually in good preservation, and not lying on the bottom, but scattered about the inside. In others again the tomb is filled with earth and large stones, and in these, the chatties are usually broken, and the pieces are not on the bottom of the tomb, but are at different depths such as we would expect them, if they had fallen in with the mass of earth and stones through the broken lid. If the tomb had been intentionally filled with earth, which is very unlikely, the people would have shown some discrimination in filling it, and not used blocks of stone for the purpose. Then, if the small chatties had been originally placed inside, we would find them all on the lowest surface of the earth which fills the tomb; but in no case are they all so. On one of the oblong tombs which I partially exposed, I found a piece of its flat lid remaining at one end, and resting on it were the remains of a few broken chatties. These would thus seem to have been placed over and not in the tomb: if this portion of the lid had been broken, the small chatties would have found their way inside as in other excavated examples. All these facts are confirmatory of the theory of a mound having once covered each tomb. The earthenware would resist the superincumbent weight for a time, but becoming cracked by the expansion and contraction of the surrounding earth, would give way, and a mass of earth would fall in. This again, would cause a hollow in the core or centre of the mound itself, and so hasten its being washed down by the weather.

The first seven articles enumerated above, are exactly those which the ideas of those early people would suggest as necessary for the providing of meat, drink and lights for the spirit of the deceased. In some parts of China this custom still prevails. They believe that the hills—which they use for burial places,—are inhabited by spirits which protect the graves of the dead. They therefore offer to them a sacrifice of food, wine, and incense or candles. The graves at Pallávaram are all either on the hills, or on the sloping ground immediately below them. This may have been the result of the ancient edict which forbade the

use of fertile land for burial; or it may have been that the same idea which the Hindús, along with other nations, have of the sacredness of the hills, induced them to choose such places for the deposit of their dead. The ancient Jews had such a belief; we see the Chinese and other nations have it; and that such is not foreign to the traditions of the Hindús is evinced by some of their finest carvings of deities and most sacred shrines being placed on the hills. The custom now-a-days of placing a pot of food at a grave may be the lingering traces of the earlier custom. Even with castes which bury their dead,—and, the evidences point to these relics being the work of an aboriginal people who used burial in preference to cremation, as the bones I found are not calcined—no custom of placing such a number of utensils seems to prevail now, nor do any of them use any such receptacle for the body. With such a conservative race as the Hindús, who take ages to change any of their customs, it seems a very sufficient reason for assigning these antiquities to a very early period in the history of this country.

These ancient burial-places in South India are known to the people by various names which indicate the belief that they are temples, and not places of sepulture, for example, *Pandava kavil*, or temple of the Pandavas. It is curious that this should be the same idea once firmly believed in by Antiquaries in Europe, till dispelled by Fergusson, who conclusively proved that they could only be temples in the sense that they were shrines of the dead, and might be shrines of the votaries of ancestor worship.

*Megalithic remains at Perianattam near Chingleput.*

These consist of some fine groups of kistvaens and stone-circles. On the Villiyin hill, there are three or four tombs; and on the northern face of the Vallarí hill are from sixty to seventy examples. At least four classes of remains exist on the Villiyin hill; they are—

- (1.) Stone-circles, with kistvaens or dolmens in the centre,
- (2.) Circles, with no surface remains in the centre,
- (3.) Kistvaens or dolmens, without circles,
- (4.) Pottery sarcophagi, without stone enclosures.

The remains generally are much the same as the megalithic tombs at Pallávaram; but whereas at that place only one or two examples of the dolmens—in the centre of circles—occur, at Perianattam a large number exists in almost complete preservation. Of the first class, above noted, over a dozen were noted. They are formed of a number of large stones laid together, roughly forming three sides of a square, leaving the fourth side open, and the inside clear. A large flat slab is laid over the top of these as a roof. Close around the central group is a pile of

smaller stones, gradually rising towards the centre in a sort of cairn or mound. At a distance of a few feet from this first or inner circle is an outer concentric one, formed of blocks of stone, each stone about two or three feet in diameter; this outer ring encloses the tomb. Some of these stone-circles are quite complete, others have only a few of the central stones and outer circle remaining. A few stones from some of the circles had evidently been quite recently removed.

The majority of the remains consists of those noted under class 2. Some of these circles are quite complete, without a stone out of place, and they have no trace of anything remaining or having been in the centre. If there had been dolmens in the centre, their removal would have disturbed some of the stones in the outer circle: but in numbers of cases I observed no displacement. The earth level inside the circle is sometimes about two feet above the surrounding soil, forming a raised circular platform of earth; this may be due to a mound having been inside the circle and gradually washed down. One of these had a circle of 27 feet in diameter with 27 stones laid closely together: the inside level was 2 feet above the surrounding ground.

Of class 3, there are a number of examples. For classification, they might be included under those of the first, for they are simply the kistvaens or dolmens with their surrounding circles either wholly or partially removed. One had nine large stones laid together, with a flat slab, 6 feet by 5 feet and a foot thick, laid on the top.

Of class 4, only one partially complete example was seen projecting above the ground surface, but broken pieces of thick pottery at different places shewed that others did or still do exist there. The one referred to, was almost identical with the pyriform tombs at Pallávaram, and measured 1 foot 6 inches in diameter and 2 feet in depth. It was badly cracked, and had only some broken pieces of earthenware and large stones in the earth inside. This tomb, and the megaliths occupy the same relative positions on the hill as do the same classes of remains at Pallávaram. The stone circles are on the knolls and higher slopes, and the earthen urns lower down at the very base of the hill. No indications of the long earthenware coffins were observed, but it is quite probable they may also exist here.

An excavation was made in the centre of one of the simple stone circles, to ascertain what class of tomb it enclosed. The circle was incomplete, and without central dolmens. I only found two bones, and several broken pieces of small chatties. The shaft was carried down to a depth of 4 feet, but nothing else was found; these relics were 2 feet from the surface. Other remains there may once have been, but possibly they have been intentionally removed at one time or other;

or it might point to there having been a tumulus or mound inside the circle, in which case the funeral urn would be close to the ground surface, and when the mound disappeared, the relics would go also. The fragments of pottery may be of service in a classification of such articles found at other places: they are quite different from the chatties found in the Pallávaram earthenware sarcophagi; the pieces are moulded and have rude attempts at ornament. The contents of the Pallávaram tombs are all quite plain, and, with the exception of the crude notchings around the top of some of the larger tombs, there is no ornament of any sort: nor is there absolutely any on any of the small chatties yet found. As far as can be made out from these fragments, the outline also would seem to have differed from the others. The rim around the earthen sarcophagus seen at Perianattam, instead of being a bead-moulding as in some at Pallávaram, is moulded in a sort of spear-shaped section.

Another circle, which had only one of the centre stones remaining, was examined; but this had the appearance of having already been dug into at some previous time or other, and nothing was found but broken pottery. Could time have been had for an examination of one of the complete kistvaens, some relics, no doubt, would have been revealed.

#### MEGALITHS AND EARTHENWARE SARCOPHAGI AROUND MADURA.

##### *Dadampattí.*

At Dadampattí, on the eastern outskirts of the village, are traces of about a dozen megalithic tombs. Some have been at one time or other partly excavated, probably for the treasure they were supposed to contain, or for the large slabs of stone of which they were formed. Those remaining show a large stone kist underground, formed of stone slabs on the top, sides and bottom. These have once on a time been enclosed by stone circles, but in only one case does this remain, and that, only partially.

Close to these, a large stone covered a round earthenware tomb. I removed the slab and came to the tomb itself at over 3 feet below the ground surface: it was shaped like the pyriform earthen tombs at Pallávaram. The semi-globular earthen lid, which had once covered it, and which would extend up to the stone slab on the surface, was broken, but a few portions of it remained. Arranged around the outside of the rim was a series of chatties, but all broken; from the different fragments, there seem to have been about half a dozen of them: they were all very soft and brittle. One of a reddish material is shown in Plate XI, fig. 1. It is semi-globular, broken,  $7\frac{1}{4}$  inches in diameter and  $4\frac{1}{2}$  inches deep, with moulded rim and groove around the outside. Another was a portion of a black-glazed double-ringed stand for supporting the other

(Pl. XI, fig. 2). It is a fragment only, but the production of the curves gives a diameter of  $7\frac{1}{4}$  inches with a depth of  $2\frac{1}{4}$ ; similar articles complete are shown in figs. 60, 61. Another fragment (fig. 3) is pear-shaped, of a thin material, red below, but black inside, and also black on the exterior where the rim had been; another of the same kind, more complete, is shown by fig. 27. The tomb had a bead-moulded rim; and the portions of the cover which remained, overlapped it by 10 inches; the edge of the cover rim was plain without moulding. I cleared the inside, and found a few bones and an iron spear head (fig. 4). The ground around the exterior was extremely hard, and in digging it out—at 6 feet from the surface—the men turned out a large frog, which had been embedded in the solid clay. The animal had a semi-transparent look, and died a few minutes after being brought to light.

Mr. Turner found a similar tomb at Paravai, the contents of which were some bones and chatties (figs. 5 to 8) and a large number of beads. Fig. 5 is a fragment of a ring-stand, similar to figs. 2, 60 and 61, it is black-glazed,\*  $4\frac{3}{4}$  inches in diameter, and  $2\frac{3}{4}$  inches deep. Fig. 6 is a chattí of a reddish colour,  $6\frac{1}{4}$  inches deep, and 7 inches at the widest diameter. Fig. 7 is a chattí; brownish red, slightly mottled with dark spots, and glazed; moulded rim; notched ornament round body of pot; 8 inches deep, and 9 inches in diameter. Fig. 8 is a chattí; reddish colour; slightly different in shape from the above; no ornament; 6 inches deep and 6 inches in diameter. The beads found in this are peculiar and interesting. Some are of a reddish semi-transparent material, with milky streaks through them; a few are of a greenish hue, and others of white crystal; most of them have a design in white inlaid work, the lines seeming to have been graved on the surface, and the white enamel filled in. These are important, among other respects, in that they resemble beads found at the seven Pagodas. Sir Walter Elliot states,† that such articles have been picked up near some mounds there. Mr. Loventhal of Vellore showed me a number he had collected himself. The mounds, referred to, were supposed to cover remains of buildings, but excavations revealed nothing in the shape of masonry. From a comparison of the beads from the seven Pagodas with those found in the Madura tomb, I am convinced the former came from burial places also, which would explain the absence of buildings expected by the excavators. The other articles mentioned as being found by Sir Walter Elliot seem to completely confirm this theory.

A few of the most typical of the beads from the Paravai tomb are illustrated in Plate X, fig. 3. Those marked *a* are red, *b* are red or

\* See further remarks on this "glaze" or gloss.

† Carr's *Seven Pagodas*, p. 119.

various shades, *c* is red with white streaks, *d* is green, and *e* are red crystals.

These seem to be rather unusual, for I found none in any of the tombs I examined.

Another tomb removed from Paravai to Madura, was opened by myself. Inside were a quantity of human bones, evidently those of a large-sized person. An unusually large number of utensils were also found, fifteen in all. (Pl. XI, figs. 9 to 23.)

Figs. 9 to 14 are bowl-shaped, with a double curvature on the body. They have, as all the others, a slight glaze, and are of a rich red colour speckled with black spots. They vary in size from  $5\frac{3}{4}$  inches to  $6\frac{1}{4}$  inches in diameter, by  $2\frac{1}{4}$  inches to  $3\frac{1}{2}$  inches deep.

Figs. 15 to 21 are also bowl-shaped ; but, with the exception of fig. 18, which has a slight hollow round its outer upper surface, are of a plain convex curve. They are black inside, and black on the upper surface of the exterior, merging into red on the under side. They vary in size from  $6\frac{1}{2}$  to  $8\frac{1}{2}$  inches in diameter, by  $\frac{3}{4}$  to  $2\frac{1}{2}$  inches deep.

Fig. 22 is a chattí, similar to fig. 7 ; 8 inches in diameter and  $7\frac{1}{4}$  inches deep.

Fig. 23 is a small vessel, semi-egg-shaped ; broken. It is black inside, and on the exterior has the beautiful merging of the two colours, black and red, so characteristic of the pottery found in this neighbourhood ; 5 inches in diameter and  $4\frac{1}{2}$  inches deep.

#### *Paravai.*

At Paravai the tombs are of earthenware, pyriform-shaped. They occupy a level piece of waste land to the east of the village. A great many appear above the soil, covering an area of several acres. I excavated one, and found it to be completely filled with hard compact earth and stones ; there was neither trace of bones nor chatties, not even a fragment : the interior was coated with lime. Probably it may have been emptied at some previous time or other.

Another I excavated, and found a number of bones and a skull, the latter being very nearly perfect (lower right of Plate XI), and two small broken vessels (figs. 24, 25). The bone forming the skull mostly remains in position, and the other broken fragments could, I doubt not, be fitted on : it is in very good preservation.

Fig. 24 is bowl-shaped ; black inside, and black and red outside :  $5\frac{3}{4}$  inches in diameter and  $2\frac{1}{4}$  inches deep.

Fig. 25 is similar to fig. 23.

The last tomb examined here was perfectly complete, with cover in position. The tomb and cover were cracked in different places, but no

piece was out of place. The contents might therefore be expected to be complete. The cracks were sufficiently wide to admit of soil finding its way inside along with moisture. This tomb and others I have since examined, perfectly corroborate the theory I previously advanced in a report to Government, that all such tombs as these seemed to have had a lid on the top. I find also on comparing their proportions, that those pyriform tombs at Pallávaram are all broken off nearly midway down their original depth. This may have been the result of their having been placed half their depth in the earth (see Pl. X, fig. 4), the upper portion above the ground level being covered with a mound. As the mound was washed down, the portion of the tomb above the ground level would disappear also. We might account for others remaining perfect, with their covers complete, through having—tomb and mound—been placed in a hollow depression in the ground. The tumulus silting-down would not disperse, but remain and fill up the hollow ground. In these burial-places, a considerable silting-down has undoubtedly been in progress since the time they were first used; for, though they now mostly present a uniformly level appearance, tombs at one place may be several feet below the present surface, while at others the broken middle circumference of a tomb only appears. This would argue irregularity of the ancient surface. The contents of the tomb referred to above were four articles and other fragments of glazed earthenware (Pl. XI, figs. 26 to 29), and a large quantity of crumbling human bones, all embedded in loose fine-grained earth.

Fig. 26 is a large bowl-shaped vessel,  $10\frac{3}{4}$  inches in diameter by 5 inches deep; black inside, black and red on the exterior; with rim mould externally and internally. It is the only one of its class found among all the examples I examined.

Fig. 27 is a conical-shaped vessel, 6 inches in diameter by  $6\frac{3}{4}$  inches deep; colour, black and red.

Fig. 28 is cup-shaped,  $4\frac{3}{4}$  inches in diameter and 5 inches deep; black inside, and black and red outside. On the black surface, next the rim, is a peculiar attempt at ornament, met with on a few of the articles found in this district; I have as yet seen it nowhere else. It seems to have been put on in another colour, and this, coming off, has left a dull mark on the glazed surface. Some portions of the colour still adhere, and it appears of a whitish tinge. The marks are shown as small spots or short lines, arranged in groups of seven curved concentric lines, pointing diagonally downwards from the rim. (See Plate X, fig. 5.)

Fig. 29 is a large chattí,  $8\frac{1}{2}$  inches in diameter and depth; colour red. It is similar to figs. 7 and 22.

*Anapanádi.*

The tombs at Anapanádi, on the south-east outskirts of Madura, are all of earthenware and pyriform in shape; they stand in a piece of waste ground to the east of the village. The ground in its extent and general appearance exactly resembles that at Paravai. The tombs appear above the ground singly and in groups. They vary considerably in size. One, which I dug out and removed, contained the bones of a child. It measures 1 foot  $2\frac{1}{2}$  inches in diameter, by 1 foot 7 inches deep. Others I saw, evidently broken off about their middle circumference, measured 3 feet 6 inches in diameter. These were the largest of any. All these were of a coarse red earthenware material, of a very different clay from the finely-grained light material of the enclosed smaller articles. Some few tombs, however, always small, which I noticed most particularly at this place, were made of a thin black and red glazed earthenware like that of the small vessels, about three-sixteenths of an inch thick. This species of tomb was comparatively limited in number; they were evidently used by a superior class, and—from the bones found inside—seemingly by females. One of this latter form of tomb, on examination, was found to contain three nicely-shaped little vessels. (Plate XI, figs. 30 to 32).

Fig. 30, small pear-shaped lota,  $2\frac{1}{2}$  inches in diameter and 2 inches deep; colour, black inside, black and red outside.

Fig. 31, small-necked chatty, with painted bottom;  $3\frac{3}{4}$  inches in diameter and depth; colour, black and red.

Fig. 32, double ring or stand, probably for fig. 31;  $3\frac{1}{4}$  inches in diameter and  $1\frac{3}{4}$  inches deep; colour, black.

A tomb of the more ordinary earthenware I next dug out, remained with its globular cover complete. It measured 3 feet in diameter, and 4 feet deep including the lid. As usual, it was cracked in different places. The expansion and contraction of the moist earth which had found its way inside through the cracks could hardly leave it otherwise. It stood deep in the ground, with none others appearing on the surface within a considerable distance of it. In this I found one solitary vessel (Fig. 33)  $4\frac{3}{4}$  inches in diameter and 5 inches deep, similar in shape to Fig. 28. There were no other fragments, and as the tomb was complete, none could have previously been taken out. Very different is this from the fifteen articles found in the one from Paravai (with figs. 9 to 23). Doubtless there were reasons for the difference—perhaps the poverty or wealth of the deceased, his surviving family, or some custom peculiar to these people. This one may have been the last of his family; the grave was apart from the others and buried deeply in the ground. In this one, I found a skull with some of the bone remaining; and the rest in

almost perfect outline, through having been filled in with the clayey soil. Its outline should be of importance in pointing to the class of people who originated these remains. The bones of the skeleton are large-sized, and evidently those of a person over the ordinary height. The proportions of these and most others found in the ordinary-sized tombs should, I am afraid, throw some discredit on the popular native legend, that people lived to a great age, shrunk into pigmies, and were then so buried. This fiction seems to be very general, for I heard it related by people at all these places I visited. None of the bones, found in any of these graves, were calcined. In another tomb, of thick earthenware, I found some bones and three vessels, besides broken fragments of others. (Figs. 34 to 36.)

Fig. 34, a necked chattí,  $5\frac{1}{2}$  inches in diameter and  $4\frac{1}{2}$  inches deep; colour, black and red.

Fig. 35, similar to figs. 28 to 33;  $5\frac{1}{4}$  inches in diameter and  $4\frac{1}{2}$  inches deep; colour, black and red.

Fig. 36, semi-oval vessel, 5 inches in diameter and  $3\frac{1}{2}$  inches deep; colour, black and red.

In a broken specimen of one of the small sarcophagi—of thin fine glazed material—four articles were found (figs. 37 to 40). It was about 18 inches high and was simply an enlarged example of fig. 27, with a series of grooves on the outer surface, parallel to and near the rim.

Fig. 37 is a small cup-shaped vessel,  $4\frac{1}{2}$  inches in diameter, and  $3\frac{1}{2}$  inches deep; colour, black and red. It has the peculiar dotted, diagonal-lined ornament I previously remarked in fig. 28; in this case the groups are of four lines each.

Fig. 38, a necked chattí,  $5\frac{1}{4}$  inches in diameter and  $4\frac{1}{4}$  inches high, colour red.

Fig. 39, similar to fig. 36; colour, black and red.

Fig. 40, small bowl-shaped vessel,  $5\frac{1}{2}$  inches in diameter and  $2\frac{1}{4}$  inches deep; colour, black and red.

In some fragments close to the tomb, in which were the above, I found a small semi-globular pot nearly complete; size, 4 inches in diameter and 3 inches deep: colour, black and red, with the ornament on the black, before described. The small tomb found at this place, and which I removed complete to Madras, was opened after my return. Removing the soil, I found fragments of two small chatties, and also figs. 42, 43 and 62.

Fig. 42 is a small cup-shaped article,  $3\frac{1}{4}$  inches in diameter and depth; colour, black and red.

Fig. 43, a small-necked chattí, 7 inches in diameter and  $5\frac{1}{2}$  inches deep. Its colour is red, but on one side is an irregular patch of glazed

black colour, similar to that on others described. It would seem as if some of the organic substance which causes the black had been unintentionally mixed with the red clay, out of which the chattí had been made; or it may be due to the burning, as I shall note further on.

Fig. 62, a small semi-egg-shaped cup,  $4\frac{3}{4}$  inches in diameter, and  $3\frac{1}{4}$  inches deep: colour, black and red. It is similar in shape to one I found at Pallávaram; this other has no glaze, however. In addition to these, I found a number of bones and a skull. The skull had been somewhat crushed against the inside by the chatties, but I was able to remove it in as complete a condition as it was found. Its bone lining is very thin. It is shown at the left foot of plate XI. The bones—as were to be expected from the size of the tomb—are small-sized, and those of a child. The tomb itself is shown—reversed—in the upper centre of plate XI.

Figs. 44 to 61 are articles previously collected from various tombs at Paravai by Mr. Bartells, Inspector of Police.

Fig. 44, a small bowl-shaped vessel,  $5\frac{3}{4}$  inches in diameter,  $1\frac{1}{4}$  inches deep; colour, black and red.

Fig. 45, a lid with moulded handle on top;  $5\frac{1}{2}$  inches in diameter and 4 inches high; colour, black. It is very similar to another I found at Pallávaram.\* The checked rim for fitting the top of the vessel, which they were intended to cover, is the same in both cases. This one is slightly higher in proportion to its diameter than the other.

Fig. 46, a double-curved bowl, with moulded rim;  $5\frac{1}{2}$  inches in diameter and 2 inches deep; colour, black and red.

Fig. 47, a bowl,  $5\frac{1}{2}$  inches in diameter, and  $2\frac{1}{4}$  inches deep; colour, black and red.

Fig. 48, a bowl,  $6\frac{1}{2}$  inches in diameter, 3 inches deep; colour, same.

Fig. 49, a bowl,  $6\frac{3}{4}$  inches in diameter,  $2\frac{1}{4}$  inches deep; colour, same.

Fig. 50, fragment of a similar vessel: colour, same.

Fig. 51, bowl, 6 inches in diameter,  $2\frac{1}{4}$  inches deep; colour, same.

Fig. 52, bowl,  $5\frac{1}{2}$  inches in diameter, 2 inches deep; colour, same.

Fig. 53, a very small vessel,  $2\frac{1}{2}$  inches in diameter and  $1\frac{1}{4}$  inches deep; colour, black: is of a heavier material than the others.

Fig. 54, a small double-curved vessel, similar to, but larger than Fig. 53; 4 inches in diameter,  $1\frac{1}{4}$  inches deep.

Fig. 55, a small double-curved vessel, similar to, but larger than Fig. 53; 4 inches in diameter, 1 inch deep.

Fig. 56, a small lotí, similar to Fig. 30;  $3\frac{1}{4}$  inches in diameter and  $2\frac{3}{4}$  inches deep; colour, black.

Fig. 57, cup-shaped vessel,  $3\frac{3}{4}$  inches in diameter,  $2\frac{3}{4}$  inches deep; colour, black and red. The material is particularly thin and light.

\* See No. 7 under description of articles found at Pallávaram.

Fig. 58, semi-egg-shaped cup, similar to Figs. 23, 36 and 39;  $4\frac{1}{2}$  inches in diameter, 4 inches deep; colour, black and red.

Fig. 59, double-moulded ring stand, with necking between the rings pierced through;  $4\frac{1}{4}$  inches in diameter,  $2\frac{3}{4}$  inches deep; colour, black. The surfaces are all smooth, black and glazed, with the exception of the under inner surface, which has been left rough, and wants the glaze.

Fig. 60, Do. Do., but larger, with the ring opening wider,  $5\frac{1}{2}$  inches in diameter and  $2\frac{1}{4}$  inches deep; colour, black.

Fig. 61, Do. Do.,  $6\frac{1}{4}$  inches in diameter,  $2\frac{3}{4}$  inches deep; colour, black.

The two preceding articles are complete examples of the fragments, Figs. 2 and 5.

One striking peculiarity in all these articles is the surface glaze, if it might be so called. It might be more properly described as a gloss, as it has little or no hardness or brittleness, but has more the appearance of polish on wood-work or horn. It might be the result of some organic matter in the clay, or probably may have been put on the surface only. This latter hypothesis finds credence for instance in Fig. 59, where the material is black throughout. The portions intended to be seen when the vessel was in use, *i. e.*, the top and exterior, are smooth and glazed, while the bottom side has been left rough by the potter, and is unglazed. In one fragment, the outside is the usual black and red glaze, while the inside is dull black. A slight portion of the inner upper surface has the glaze, and it has exactly the streaked appearance of having been laid on with a brush or rubbed with some material till polished,—almost certainly the latter. Had the glaze been caused by some material in the clay, it would have appeared equally on all sides. I showed one of these to Dr. Wilson, of the Presidency College, who thought it was not a true glaze. One other peculiarity is the difference in colour of material in the same vessel. One fragment shews this perfectly—the black, the full thickness at the top, tapering down towards the bottom centre of the inside, where its thickness is a mere line; while the red is thickest on the bottom, thinning up the outside, till it fades into the black at two-thirds of the height, (see plate X, fig. 6). This may be due to different clays, but it would be difficult to run the one into the other as shown on the section. If different, the red clay would be first turned on the wheel, the black afterwards gradually added to the upper surfaces. The most probable hypothesis, however, is, that there is simply the one clay, and the different colours are due to the degree of heat applied in the burning. In the large terra cotta images so common in certain districts, the material used in burning was straw; with this they were stuffed, and the fire applied left the inside a perfect

black, and the outside red. Straw is commonly used for the burning of some potter's work, and it may possibly have been used for those now under notice. Most of these articles are either round or pointed on the bottom, and, if kept upright in the kiln, would require a support to steady them. If so, they might have been placed in the kiln in some sort of soil or clay bed; this would partially protect the lower portion of their outer surface from the heat. The fire in burning would play freely on the inner exposed surface and the upper outer surface; these would thus be subjected to a more intense heat than the partially-protected bottom. Burned in this way, a certain heat would give the red colour, and a greater would burn black; the exact proportion of heat would leave the bottom red, the other flame-exposed portions black, as we now find them. One chattí already referred to (Pl. XI, fig. 43) would seem to bear out this theory. It is a red colour almost throughout, with two small portions of the upper surface showing black blotches. It appears as if the heat had not been sufficiently intense to fully blacken the top, and the fire had been banked or gone out, just as the black was beginning to appear, or before the temperature had been sufficiently high to give it the required shades. In regard to this matter I made inquiries of some native potters in Madras, as to the black and red colours and glazing of the pottery. I showed them a specimen, and asked if they could explain the colours and glazing, and produce something like it. I was told they could do so, and that the black colour was caused by a nut rubbed on the surface; a greater or less coating of the nutty substance giving a more or less thickness of black in one material, hence the merging of the black into the red.\* The glaze was said to be produced by a species of nut likewise rubbed on the surface, and a certain degree of fineness could be given by burning the material with paddy husks or seed chaff. To test these statements, I asked a man to come and make a piece of pottery before me, which should have all the peculiarities of that from Madura. He offered to come, and did come, but I regret the wetness of the weather prevented his attempting it.

I have since been favoured by Government with the loan of a pamphlet† on some investigations conducted in the Salem District. Mention is therein made of red, and also black pottery;‡ some are said to have been black outside and red inside, and *vice versâ*; but it is not clearly stated, if the two colours occur on one side of the same piece of pottery, as in the Madura examples. They had a glossy surface, and some were “ornamented with transverse lines” similar, I presume, to

\* *Ib.*

† *Report on Tumuli in the Salem District*, by the Rev. Mr. Philips, 1872.

‡ *Ib.* p. 5, paragraph II, 1.

those from Madura. A few were submitted to Dr. Hunter, then in charge of the School of Arts at Madras. His opinion on the “glaze” or “gloss” was that “the surface is not glazed, but is merely polished by rubbing it with the juice of Toothee or *Abatilon Indicum*, a mucilaginous juice, somewhat like gum, that is used by the natives at the present day to give a gloss to black earthenware. The surface can be scratched with a knife, though it resists water. After rubbing the surface with the juice, the vessel is again fired, and a species of smear is thus produced which resists acids and water.....” “Another method of producing a smear is in use in India, *viz.*, rubbing the vessel with mica ground in water, and exposing it to heat.” This last method may, I believe, very possibly have been adopted in Madura, for most of the articles show small pieces of mica adhering to various parts of the surface. The beads found in these Salem tumuli would seem—from the description Dr. Hunter gives\* of them—to also resemble those before mentioned. He says: “They are made of carnelian, ornamented with a pure white enamel of considerable thickness, which has been let into the stone by grinding the pattern, filling in probably with oxide of tin and exposing to heat. The enamel is very hard, cannot be touched with a knife, and is not acted on by a strong nitric acid. The small beads are made of white carnelian and icespar.”

No description of the designs engraved on the surfaces is given,† so I cannot compare them in this respect; but the material and method of inserting the enamel would seem to have been the same in both cases. The large urns excavated at Salem were of the common round kind, and many swords and other iron weapons were found in the tombs. They had thus probably been used by warriors or hunters. In only one of the Madura examples, at Dadampatti, did I find a portion of an iron sword. The absence of such weapons from their sepulchres would thus seem to show that the people in these parts of Madura had been a pastoral race.

#### MEGALITHIC REMAINS NEAR KODAIKANAL.

##### *Palmi Hills Kistvaens.*

There are quite a number of groups of kistvaens scattered about the sides of the valley west from the Perumál Peak; these have been generally noticed in Mr. Sewell's *Topographical Lists of Antiquities* (Volume I, p. 288). In company with Mr. Turner, I visited one, which had been referred to by Bishop Caldwell. It is known as Arasi Parai,

\* *Ib*, p. 6, para, II, 3.

† They may probably be in the photographs, but the copy I had did not have these.

is about 3,500 feet lower than Kodaikanal, and stands on a level outcrop of rock midway up the east side of the valley west from Perumál hill. It consists of a group of kistvaens, enclosed by a regularly-built masonry basement, measuring about 42 feet square. The stones forming the square are rough blocks, square-dressed on the exterior and fitted together without mortar. Many of them have fallen out of position, and the blocks lie heaped up outside; but the square can still be distinctly traced. The soil is only a few inches in depth, and the walls have been built on the solid rock. Inside the enclosure are a number of kistvaens, in various stages of preservation—placed regularly side by side. These are formed by four upright slabs resting on the rock, with a large slab laid on the top. The kists and the rest of the space in the square enclosure have been filled up to the depth of a few feet with earth and stones. The remains stand north-east and south-west. We examined a few of them, but found nothing but small pieces of broken pottery; they seem all to have been rifled at some previous time or other; I heard that some others in the vicinity had lately been privately opened, and beads found inside. The side stones of the tombs stand generally in proper position, but the top slabs are very dilapidated, and one—that in the west corner—has evidently been lifted bodily, and thrown outside. The slab lies in a position where it could by no possibility have fallen naturally; this does not, however, seem to have been done at all recently. The state of this group is one of general ruin.

A mile to the north of the previous one, and a few yards down from the path, is another fine group of kistvaens in very complete preservation. It was first discovered by Mr. Turner. This has also the same peculiarity of a square enclosing basement. Being built on a very decided slope of rock, and the stones of the basement not placed vertically, but at right angles to the rock surface, many of them have fallen out of position. On the north side, most of the stones of the wall have fallen out of place and rolled partly down the hill. The kistvaens themselves lie over at the same angle, but stand complete, with the top slabs in their proper positions. Some of these are very large, and one of them must weigh at least five tons. The position of this group is different from the other, standing north-west by south-east. It has not been altogether free from attempts at destruction, for one slab, at the west corner, has a piece four feet by two feet broken out of it by crow-bars, the marks of which are distinctly visible. Some one had evidently tried to throw the stone out of position, but it being too heavy, they had commenced to break it up. When we saw it, it was in rather a dangerous position, for the side stone had been removed; I therefore placed some stone supports under it. The attempted destruction may

have taken place many years ago, when the roadway was being constructed, or it may have been through natives searching for treasure. The contents of this have, at one time or other, been cleared out, and we only found a few pieces of broken pottery. These were interesting, however, in that they shewed the peculiar black and red glazed colours of the pottery found in the plains near Madura. If this does not show that these megaliths were erected by migratory sections of the tribes who used the others on the plains, it would at least prove they must have had some connexion with them, when they used the same kinds of pottery. It is curious that this should have been so; the one class of megalithic remains have an enclosure of stone circles whereas the others are erected in a square enclosure.

The square built basement of these kistvaens is a peculiarity in its way, and is but one of the many varieties of megalithic remains, pertaining to different parts of the country. Cromlechs and dolmens are found, with slight variations in their character, all the world over; and it is also interesting to find that funeral jars, seemingly such as these we have lately been examining, are found in other countries besides India. Between Carthagera and Almeria, the remains of a pre-historic colony have lately been found, which are believed to have been inhabited by some unknown race previous to the Aryans. Numbers of utensils, ornaments, and arms have been found, some without trace of metal, and others in stone, iron, and bronze. Remains of bodies were found buried in large jars and in tiled square enclosures. This in Spain; and in Africa also, an aboriginal tribe—in Taveta—have burial customs which are similar in some respects to those remaining in India. From a recent traveller and explorer\* we learn that “after death the body is buried in a sitting posture, the left arm resting on the knee, and the head supported by the hand, the contrary arm and hand being used by the women. When they have remained sufficiently long to be reduced to skeletons, the skulls of the man and his chief wife are taken out, and placed in deep, oval-shaped pots. These are laid on their sides at the base of dracsena trees in the centre of his plantation, where in the shape of good spirits they keep watch and ward over the welfare of the crops.”

When we find cromlechs, stone circles, and other megalithic remains in different parts of the world, presenting a wonderful similarity in design and arrangement to each other, it would argue either a wandering tribe in early periods of ancient society, or different races having connexion with each other. We find in India megalithic and various forms of earthenware receptacles for the dead, which have evidently

\* Thomson, *Through Masai Land*, 3rd edition, 1885, p. 110.

been used contemporaneously with each other. The probability therefore is, that these earthen tombs may perhaps be as widespread as the megaliths are known to be. Those buried in these ancient Indian jars could only have been placed in a sitting posture, similar to that practised by certain modern burying castes. It is certainly curious to find the same jars and a similar custom at the present day in Africa. A wider investigation might reveal a more widespread practice still prevailing in other countries.



*The Mother of Jahángír.*—By MAHÁMAHOPÁDHYÁYA KAVIRÁJA SHYÁMAL DÁS, M. R. A. S., F. R. H. S., *Court Poet and Historian, Udaipur.* Translated from the *Hindí* by BÁBÚ RÁM PRASÁD.

“It is curious that there should be any uncertainty about the name and family of Jahángír’s mother,” is the opening line of a paper by H. Beveridge, Esq., C. S., published in the Bengal Asiatic Society’s Journal, No. 3 for 1887, page 164.

A careful perusal of the paper, instead of removing the *uncertainty*, gives rise to several fresh doubts and suspicions, which shall be treated in this paper, in the order in which they occur.

Q. 1. Was Jahángír’s mother a Hindú lady?

This question must be answered in the affirmative, and of this reply proofs are given below.

Q. 2. Was *ignorance* or *prejudice* the reason why the Muhammadan historians did not record the name of Jahángír’s mother?

There should be no wonder if they were guided by religious or national prejudice in withholding her name from their works, few of which are totally free from prejudice—a fact that needs no confirmation.

Q. 3. Was a Jodh Báí Jahángír’s mother?

No. The only lady of Jodh’pur wedded to Akbar (Jahángír’s father) was *Rukmáwatí*, the daughter of Ráo Mall Dev by his concubine\* Típú. She had been given away in marriage to Akbar by Chandra Sen, the son of Mall Dev; and *she had no issue*.

Another Jodh’pur princess Mán’matí, the daughter of Moṭá Rájá Udai Singh, was married in the Samvat year 1645 (A. D. 1588) to Jahángír himself, who named her *Jagat Gosáyin* or ‘Mistress of the World.’ Prince *Khurram*, afterwards the emperor Sháh Jahán, was born of her.

\* The Hindú Rájás had no scruple in giving away girls of illegitimate birth in marriage to the Muhammadan emperors, who had not the least objection to accepting matches of this nature.